

II. RESPONSE TO OFFICE ACTION

A. The Information Disclosure Statement

In the initialed copy of the Form 1449 that accompanied the Office Action, the Examiner appears to not have considered the “B” and “C” references submitted by Applicants in the Information Disclosure Statement.

In response to the Office Action dated April 13, 2005, Applicant hereby submits a substitute Information Disclosure Statement including copies of references B1-B11, and C1-C33.

B. The 35 U.S.C. § 112 Rejections

The Examiner rejected claims 20-23 for under 35 USC § 112 for various reasons. Applicants traverse these rejections, but have amended the claims as described below to facilitate timely prosecution and reduce prosecution costs.

The Examiner has advised that the term “selected to be effective” be replaced in the claims with other terminology. Applicants note that the term “selected to be effective” has been previously approved by the US Patent Office in the method claims of the parent US Patent application serial number 10/068,787, which has issued as US Patent No. 6,729,405. Applicants thus believe that this term is clear and definite as used in the pending claims as well. However, since it appears that the Examiner objects to the use of the term “selected” in the composition claims, Applicants have removed the term “selected” from the pending composition claims as a courtesy to the Examiner.

The Examiner has requested the deletion of the term “base” from the claims on the grounds that this term is vague.. However, it is noted that it is a fundamental principal that

Applicants may be their own lexicographers, and that they “can define in the claims what they regard as their invention essentially in whatever terms they choose” (*see* MPEP 2173.01). Moreover, use of the term “cement base” has been previously approved by the US Patent Office in claims of the parent US Patent application identified above. Therefore, Applicants submit that the term “base” is clear and definite as used in the pending claims, and that this rejection should be withdrawn.

The Examiner states in the Office Action that claim 20 is “indefinite because it provides no amount of water critical to the invention” (*see* page 3 of the Office Action). However, no evidence has been provided that the amount of water is critical. Therefore this rejection should be withdrawn.

As suggested by the Examiner, the claims have also been amended to recite that the fiber-containing cement composition is mixed with an aqueous-based fluid to result in the cement slurry (*see* the Specification at page 16, lines 3-12).

Applicants submit that the 35 USC § 112 rejections have been overcome. Favorable reconsideration is requested.

C. The 35 U.S.C. § 102 Rejections

The Examiner rejected claims 20-23 over various references. Applicants traverse these rejections for the following reasons.

Applicants note that claims 20-23 have been rejected over numerous references. Because the subject matter of the pending claims are distinguishable over all of the cited references,

Applicants make the following arguments over the cited references without conceding that any of the cited references are prior art to the present application.

Amended claim 20 recites that calcium silicate natural mineral fiber is present in the fiber-containing cement composition in an amount greater than about 10% by weight of cement *and* in an amount effective when said fiber-containing cement composition is mixed with an aqueous-based fluid to result in a cement slurry that forms a cured cement composition having a ratio of flexural strength to compressive strength that is greater than or equal to about 0.35 when the cement slurry is exposed to a temperature of greater than about 180°F. In this regard, the Specification teaches and illustrates formulation of cement compositions comprising natural mineral fiber in an amount effective to achieve a surprising and unexpected increased ratio of flexural strength to compressive strength greater than about 0.35 (*see*, for example, page 13, lines 11-22; *see also* Example 2 and Figures 1 and 2). In particular, Figures 1 and 2 illustrate variation in flexural strength, compressive strength and ratio of flexural strength to compressive strength with varying concentration of calcium silicate natural mineral fibers and with variation of temperature.

To support an obviousness rejection under § 103, two criteria must be met: (1) the prior art must provide a suggestion to those of ordinary skill in the art to make the claimed invention; and (2) the prior art must reveal to those of ordinary skill in the art a reasonable expectation of success in doing so. *In re Vaeck*, 20 U.S.P.Q.2.D. 1438, 1442 (Fed. Cir. 1991). Both suggestion and reasonable expectation of success must be based on the prior art and not taken from the Applicants' disclosure. *Id.* In this regard, *each and every element* of the claimed invention must be taught by the cited references. Significantly, "the prior art reference (or references when

combined) must teach or suggest *all* of the claim limitations” (See MPEP § 2142 and 2143.03)(emphasis added)).

On the bottom of page 2 of the Office Action, the Examiner states that “all of the . . . cited references teach a cement composition comprising a natural mineral fiber in a range of amount greater than 10 wt% cement thus anticipating the instant invention [or] [e]ven if not anticipated, overlapping ranges of amounts would have been prima facie obvious.” However, regardless of what may or may not be disclosed in these references concerning particular wt% of natural mineral fiber, Applicants are unaware of any teaching or suggestion by any of the cited references concerning formulation of cement compositions in which calcium silicate natural mineral fiber is present in an amount effective to result in a cured cement composition *having a ratio of flexural strength to compressive strength that is greater than or equal to about 0.35* when the cement slurry is exposed to a temperature of greater than about 180°F. If these grounds of rejection are maintained, the Examiner is requested to indicate where the subject limitations are to be found in a reference or in an affidavit pursuant to 37 C.F.R. § 1.107(b) averring facts within the personal knowledge of the Examiner (*see* MPEP 2144.03).

For the above reasons, claim 20, and the claims dependent therefrom, are novel and nonobvious. Favorable reconsideration is requested.

D. New Claims 24-38

New independent claim 24 is directed to a fiber-containing cement slurry, comprising a hydraulic cement base, a calcium silicate natural mineral fiber, and an aqueous-based fluid in which the natural mineral fiber is present in an amount greater than about 10% by weight of cement, and is also present in the fiber-containing cement slurry in an amount effective to result

in a cured cement composition formed from said cement slurry having a ratio of flexural strength to compressive strength that is greater than or equal to about 0.35 when the cement slurry is exposed to a temperature of greater than about 180°F.

New independent claim 28 is directed to a hardened cement composition cured in at least a first portion of a wellbore having a temperature that is greater than about 180°F. New claim 28 recites that the hardened cement composition is cured from a fiber-containing cement slurry comprising a hydraulic cement base, a calcium silicate natural mineral fiber, and an aqueous-based fluid in which the natural mineral fiber is present in the fiber-containing cement slurry in an amount greater than about 10% by weight of cement, and is also present in the fiber-containing cement slurry in an amount effective so that said hardened cement composition has a ratio of flexural strength to compressive strength that is greater than or equal to about 0.35 at the temperature of greater than about 180°F in the at least a first portion of the wellbore.

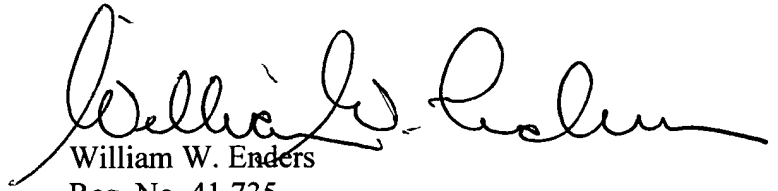
Applicants are unaware of any teaching or suggestion that would anticipate or render obvious the subject matter of new independent claims 24, 28 or the claims dependent therefrom.

E. Conclusion

In view of the above, Applicants submit that claims 20-38 are in condition for allowance.
Reconsideration of the application and claims is courteously solicited.

The Examiner is invited to contact the undersigned attorney at (512)-347-1611 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William W. Enders", written over a horizontal line.

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